

a base material of said gas diffusion layer is made of an electron conductive carbon fiber woven fabric, comprising a weave of a warp comprising electron conductive carbon fiber and a weft comprising electron conductive carbon fiber, and

an opening is formed adjacent crossing points of said warp and said weft, wherein:

the relationship about  $1/1500 \leq (10/W-Y)(10/Z-X)/XY \leq$  about  $1/5$  is satisfied where said carbon fiber woven fabric has a warp density of Z threads/cm, a weft density of W threads/cm, a warp thickness of X mm and a weft thickness of Y mm.

26. (Canceled).

27. (Original) The gas diffusion layer of claim 25, wherein said fabric has a thickness in a range of about 0.05 mm to about 0.3 mm.

28. (Original) The gas diffusion layer of claim 25, wherein said fabric has a density in a range of about 0.32 g/cc to about 0.42 g/cc.

29. (Original) The gas diffusion layer of claim 25, wherein one of said warp density and said weft density of said carbon fiber woven fabric is in a range of about 16 threads/cm to about 45 threads/cm, and the other of said warp density and said weft density is in a range of about 12 threads/cm to about 40 threads/cm.

30-32. (Canceled).

33. (Original) The gas diffusion layer of claim 27, wherein said carbon fiber woven fabric has a density in a range of about 0.32 g/cc to about 0.42 g/cc.

34. (Original) The gas diffusion layer of claim 27, wherein one of a warp density and a weft density of said carbon fiber woven fabric is in a range of about 16 threads/cm to about 45 threads/cm, and the other of said warp density and said weft density is in a range of about 12 threads/cm to about 40 threads/cm.

35. (Original) The gas diffusion layer of claim 28, wherein one of a warp density and a weft density of said carbon fiber woven fabric is in a range of about 16 threads/cm to about 45 threads/cm, and the other of said warp density and said weft density is in a range of about 12 threads/cm to about 40 threads/cm.

36. (Original) The gas diffusion layer of claim 35, wherein said carbon fiber woven fabric has a thickness in a range of about 0.05 mm to about 0.3 mm.

37. (Canceled).